



THOMAS G. NEWMAN,
EDITOR

VOL. XXV. April 13, 1889. No. 15.

EDITORIAL BUZZINGS.

Birds sing to the heart—to yours and mine—
In spite of chilly weather.
They sing of hopes—human, divine—
Twain spirits share together.

They sing of love heart-warm and true,
All thro' the balmy weather.
They sing till high in heaven's blue
The soul floats like white feather.

FRANCES ADAIR, in Inter-Ocean.

We Regret to learn that Mr. Isaac Hopkins, editor of the *Australasian Bee Journal*, is indisposed, and has had to cease all business for a time. Mr. O. Poole is installed as temporary editor, and manages it quite well. The AMERICAN BEE JOURNAL extends its sympathies to Bro. Hopkins, and hopes for a speedy restoration to health.

Beeswax.—Mr. W. R. Henwood, of Morven, Ont., asks how to separate beeswax from tallow and rosin. Tallow renders the wax soft, and emits an unpleasant odor when being melted; and rosin makes the fracture smooth and shining instead of granular, and may be dissolved in cold alcohol, while the wax remains untouched. We know of no way to separate beeswax from tallow. Such wax is fit only for candles or grafting-wax.

Queen-Excluding Point.—H. L. Hughes, of Lime Springs, Iowa, on April 4, 1889, asks this question:

MR. EDITOR:—Will you please answer this question through the AMERICAN BEE JOURNAL? What is the space that will prevent the queen from passing through, but will allow the workers to pass?

It is quite difficult to decide the exact size to exclude a small queen and yet admit a loaded worker—but it is generally agreed that nine-fiftieths of an inch is about right; that is a trifle smaller than five-thirty seconds of an inch.

Mustard and Rape.—A correspondent in New York asks these questions:

How are rape and mustard as honey-plants, with regard to both quality and quantity of honey? Are they good for anything else besides honey? When should the seed be sown? Of the different species of mustard, which is the best? Have hollyhocks honey in them?

We reply: Chinese or black mustard yields considerable nice honey. Sow early in the spring, broadcast 25 pounds to the acre, or drill it in, 8 or 10 pounds to the acre; cultivate to keep the weeds down at first, later it will kill out the weeds.

Rape yields good honey; sow it about four weeks before you want it to bloom.

Holly yields excellent honey.

Exhibits of Honey-Plants.—Mr. Julius Moesch, Indianapolis, Ind., asks us to state in the AMERICAN BEE JOURNAL how to arrange a collection of honey and pollen plants for fairs. He says: "As some of them bloom in the spring, shall I press a leaf and blossom of each plant?"

In brief reply we remark: Consult Cook's Manual concerning the time of bloom. Collect the leaves and blossoms when the plants are as dry as possible, and spread them out between newspapers, or better, between thick felt carpet-paper. Place a weight on top. When dry (in from 10 to 15 days), mount them on heavy book-paper, by fastening them bodily to the sheet by thick mucilage. To preserve them from insects, apply a solution of corrosive sublimate, using a camel's-hair brush to all parts of the specimen.

Friend Gravenhorst.—whose biographical sketch and portrait appeared in the BEE JOURNAL for Nov. 14, 1888, writes thus in a private letter:

You have honored and delighted me by publishing that biography, for German bee-keepers are very jealous of English and American methods, and apicultural inventions, which I and a few others delight to defend.

We spent several days in company with friend Gravenhorst ten years ago this summer, and found him among the foremost of the progressive bee-keepers of the present century.

The Many Friends of Mr. N. W. McLain, late special agent of the United States Department of Agriculture, in charge of the Apicultural Station at Hinsdale, Ills., has been chosen by the Board of Regents of the Minnesota State University, Director of the State Agricultural Experiment Station, and Professor of Agriculture, in charge of the Station and State Experimental Farm, at St. Anthony Park, Minn., four miles from Minneapolis, and six miles from St. Paul. He has already taken charge of the Station, and his address will hereafter be "St. Anthony, Minn." We congratulate Prof. McLain upon his appointment to such a responsible position.

A Compliment.—The biographical sketch and portrait of Mr. Eugene Secor has called forth considerable comment. Among others we will enumerate two from his own State. The Winnebago Summit, for March 14, 1889, has this to say:

The last number of the Chicago AMERICAN BEE JOURNAL publishes a portrait and biographical sketch of our townsmen, Mr. Eugene Secor. The portrait is life-like, and the sketch is well written. Mr. Secor is a well-known authority on the subject of bee-keeping, and has shown by actual results his knowledge on this important industry. He has been a correspondent of the JOURNAL for ten years past, and has written many good things, both in prose and rhyme. In the sketch is incorporated a rythmical description of the Bee-Convention in Chicago in 1886, which is exceedingly well written. Mr. Secor looks well in print, and ought to feel complimented at being termed the "Poet Laureate of Apiculture."

The Iowa State Register for March 22, 1889, gives this notice:

A Worthy Compliment.—The last AMERICAN BEE JOURNAL of Chicago has a good picture of a worthy citizen of Iowa, Eugene Secor, Esq., of Forest City. It also has a lengthy biographical sketch of Mr. Secor's public services, as well as his eminent success as a bee-keeper. Mr. Secor is well known all over Iowa, and is highly appreciated. He has faithfully discharged the duties of nearly every office in Winnebago county, and has had various stations of honor and responsibility in numerous societies and organizations. His literary talents are of a high order, and his poetic genius flashes out brightly on frequent occasions. And yet he is eminently a practical man, and usually makes a grand success in whatever he puts his hands to. He is one of Iowa's good practical men, who can be loved and trusted in every department of industry.

We are glad to learn that our friend Secor is so favorably known at home, and that the notice we gave him is appreciated by his many friends.

Down East the prospect for spring is thus described by J. H. Larrabee, Secretary of the Vermont Bee-Keepers' Association, on the 2d inst.

We are having a very favorable spring for the bees. Soft maples will be open in a day or two. With the bees in good condition, clover plenty, and the blooming year for basswood, you may hear from Vermont in 1889. My 90 colonies have come through with the loss of only one, by queenlessness; indeed bees all through the State are in good condition.

In the West the weather has been colder during the past week than it was in February—and the early spring theory has had a set-back.

Mayor Heddon is the new title won by our friend, James Heddon, at Dowagiac, Mich. He was elected by a small majority over one of the most popular men in the city. Mr. A. M. Moon was also elected Justice of the Peace in that city at the same time. Mr. M. is son of Mr. A. F. Moon, the "father" of the "North American Bee-Keepers' Society," and at the time of his death the late editor of Moon's *Bee World*, published at Rome, Ga. Bee-men are popular in Dowagiac. The AMERICAN BEE JOURNAL offers congratulations.

GLEAMS OF NEWS.

Spring Work.—A correspondent in the *Ohio Farmer* gives these hints about seasonal spring work in the apiary:

There are many fine days from the first of March until spring fairly opens when we can handle bees in perfect safety. I have found to my entire satisfaction that there is no time during the year that my attention is more demanded than during March and April. These two months are the key to large honey crops, and I must have my bees in such shape at this time that I can attend to their wants.

I endeavor to put my bees in the best possible condition for safe wintering during the fall months, but at my regular time of making examination during the following March I have never failed to find that attention was needed, and often many colonies are saved just at the nick of time.

I may have been very particular to give each colony in the fall the necessary amount of provisions, but from some cause I am not able to explain, many will consume almost their entire stores by the following March, while others have abundance in reserve. Hence such colonies must be provided with provisions, or they will starve long before spring sets in.

While it is a fact that food cannot be provided in winter weather in some forms, it can be in perfect safety in others, and not only in perfect safety, but it is very beneficial to healthy colonies, and very healing to those affected with diarrhea. This most dreaded disease generally shows itself in March, and fine days, together with careful manipulating, will bring such colonies through.

All colonies badly affected thus should be placed upon clean combs and provided with candy made from pure granulated sugar. This candy is the only safe winter food we can give bees.

Liquid food of any kind fed to bees during winter is very damaging to them. It tends to produce diarrhea, while this candy referred to will tend to heal it.

After the weather has become broken, and the bees can get a good flight once or twice a week, we can safely feed liquid food, and we should commence as soon as possible by feeding a little to every colony once a day.

From this time forth all depends entirely upon our management as to the force of bees we have on hand ready for the work when the harvest comes. By judicious feeding to stimulate brood-rearing, we can easily have our force double what it would otherwise have been if allowed to take their chances. Large crops of honey wholly depend upon the strength of the colonies, not upon the numbers in the hive.

Catalogues for 1889 are on our desk from—

J. W. Bittenbender, Knoxville, Iowa—4 pages—Bee-Keepers' Supplies.

S. W. Morrison, M. D., Oxford, Pa.—4 pages—Carniolan Queens.

Hulbert Fence & Wire Co., 904 Olive St., St. Louis, Mo.—24 pages—Fencing Wire-Work, for Residences, Cemetery, or Public Grounds.

W. E. Clark, Oriskany, N. Y.—26 pages—Apiarian Supplies.

Martin & Macy, North Manchester, Ind.—12 pages—Bees, Apiarian Supplies, Poultry, Plants, etc.

Rumsey & Co., Seneca Falls, N. Y.—16 pages—Spraying Pumps.

Morehouse & Annis, Rochester, N. Y.—8 pages—Garden, Field and Flower Seeds.

W. E. Clark, Oriskany, N. Y.—28 pages—Bee-Keepers' Supplies.

The Bees are Swarming Over.

—On page 196 was published a pretty melody, which, no doubt, delighted many a bee-keeper's family; but to make the words more appropriate for the aparian home, they have been parodied by Geo. W. York as follows, and now all bee-keepers can join heartily in the song :

I love to wander by the brook,
That winds among the trees;
And watch the birds fit to and fro—
But hate the hum of bees;
'Tis my delight from morn till night,
To ramble on the shore,
But often there my mother's voice
Comes from the kitchen door—

Chorus—Maggie, Maggie,
The hives are running over,
The bees begin to swarm;
Go and hive them, Maggie,
Before they leave the farm.

I'm not allowed to have a beau,
Except upon the sly;
So yesterday he came and took
Me far from mother's eye;
We strolled along so lovingly—
From bees far out of reach—
When just from out that kitchen door,
Came that unearthly screech—
Maggie, Maggie, etc.

He took me to a country fair—
Went up in a balloon;
Says he to me, "We'll go and see
The man up in the moon;"
We drifted over towards our farm,
And never thought of bees;
But suddenly I heard a voice
Come far up through the trees—
Maggie, Maggie, etc.

That music on page 196 was "a treat" to our subscribers, unannounced and unexpected, and we find that it struck the popular chord. Many have written to thank us for the surprise, and asking us to insert more music occasionally. The following from friend C. P. Dadant is only a fair sample of many others :

Please send us another copy of No. 13 of the *AMERICAN BEE JOURNAL* for my daughters. They find that tune very nice, and wish you would occasionally put in another such a treat.

Molasses for Feeding Bees in the Spring.—Mr. W. S. Peck, of Stafford, N. Y., asks the following questions to be answered in the *AMERICAN BEE JOURNAL*:

Is New Orleans or any other cane molasses fit to feed bees in the spring? What is the cheapest good feed for bees?

We answer: When the bees are flying freely in the spring, anything that the bees will take will not be very objectionable; so that you can feed them molasses then without much danger. On general principles its use cannot be recommended. Sell the molasses and buy sugar, if you have no honey to feed the bees.

Chapman Honey-Plant Seed.

The United States Commissioner of Agriculture has a quantity of the Chapman honey-plant seed for free distribution. Applicants desiring packages of the seed will be supplied while the seed lasts, in the order of their applications. The request for seed should be addressed to the United States Commissioner of Agriculture (Seed Division), Washington, D. C.

What Apiarists Say about the April number of the *ILLUSTRATED HOME JOURNAL*, which they have just received, may be ascertained by the following which are samples of the multitude :

J. E. Pond, of North Attleboro, Mass., has this to say of it: "The *ILLUSTRATED HOME JOURNAL* is received. The work is simply superb, as a specimen of typographical execution. As a journal for the home it is first-class, clean, interesting, and instructive, not only an ornament to the library or drawing room table, but a means of giving to many homes a much-needed source of amusement, as well as instruction, both moral and secular. To those who know you, the *JOURNAL* seems just like you. For the purpose it is intended, I know of none that are quite up to it."

Dr. C. C. Miller, of Marengo, Ills., writes thus: "Well, well; the editor and publisher of the good old *AMERICAN BEE JOURNAL* is now publisher of a literary magazine. Well, you were born a publisher; so I am not surprised to see it gotten up in such beautiful style, on paper that is a pleasure to handle. I wish it great success."

Dr. G. L. Tinker, of New Philadelphia, Ohio, writes: "The April number of the *ILLUSTRATED HOME JOURNAL* is received. It is beautifully printed and illustrated, and is full of choice and instructive reading-matter for the family. It is deserving of a wide circulation, for it stands second to none of the popular monthlies."

Mrs. Mahala B. Chaddock, of Vermont, Ills., expresses her opinion thus: "I have read the April number of the *ILLUSTRATED HOME JOURNAL* through, and pronounce the workmanship excellent, and the matter good, cheerful and useful—fully up with the times; and I wish you success in publishing it. I send you a short story and some poetry for the next number."

Charles Dadant & Son, of Hamilton, Ills., write thus: "The *ILLUSTRATED HOME JOURNAL* is indeed very nice, and after having seen it, we want it regularly. We compliment you on its appearance."

N. W. McLain, Director of the Minnesota State Agricultural Experiment Station, St. Anthony Park, Minn., writes: "I like your new magazine, the *ILLUSTRATED HOME JOURNAL*, and I hope you will find it very profitable. I shall have pleasure in contributing an article for its pages, as soon as I can find the time to do so."

George E. Hilton, of Fremont, Mich., writes: "The April number of the *ILLUSTRATED HOME JOURNAL* is at hand. The typography, quality of paper, and general finish of the mechanical work, as well as the entertainment and instruction it contains, like everything else that comes from your hands and office, is simply A No. 1. My wife is also delighted with the *HOME JOURNAL*. May it receive the reward it so richly deserves."

S. W. Morrison, M. D., of Oxford, Pa., writes: "Your beautiful *HOME JOURNAL* is received. I take great pleasure in welcoming such a clean, healthy and instructive journal (as it is) into my home."

G. M. Doolittle, of Borodino, N. Y., writes thus: "The April copy of the *ILLUSTRATED HOME JOURNAL* came last night. It is simply PERFECTION in all its parts."

J. M. Hambaugh, of Spring, Ills., has this to say: "The *ILLUSTRATED HOME JOURNAL* is at hand, and is certainly a credit to its editor and publishers. May its success be all that you desire."

Never did the advent of a magazine for the family touch such a responsive chord, or receive such a hearty welcome.

Trial subscriptions will be taken 3 months for 40 cents each; or it will be clubbed with the *BEE JOURNAL* for a year at \$2.00 for both. Agents, who are working for premiums, may take "trial subscriptions," and count 4 as one yearly subscriber. One sample copy sent free to subscribers of the *BEE JOURNAL*, upon application. That will tell you all about the "Premiums" offered for getting up clubs, and "Cash Prizes" for the largest clubs sent in before Sept. 30, 1889. "Good pay for good work" is our motto. See page 238.

BIOGRAPHICAL.

W. Z. HUTCHINSON.

This week we present to our readers the likeness of Mr. W. Z. Hutchinson, who is well and favorably known to our readers as a correspondent for years, and at present the editor of the *Bee-Keepers' Review*, which is now in its second year. Dr. C. C. Miller gave this biographical sketch of Mr. H. in *Gleanings* for Dec. 15, 1888 :

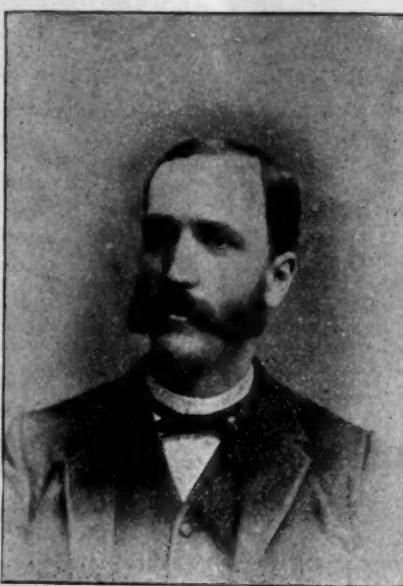
W. Z. Hutchinson is one of the many, who, although born in the East, have spent in the West all of life that can be remembered. Born in Orleans Co., N. Y., Feb. 17, 1851, he was taken, four years later, with his father's family, to the dense forests of Genesee Co., Mich., where his father literally hewed out a farm. W. Z. had the full benefit of pioneer backwoods life; and although hunting, trapping, etc., had a full share of his time, his natural bent was toward machinery. This passion for machinery was, as he advanced in his "teens," put to practical use by building a turning-lathe, and beginning the manufacture of spinning-wheels and reels. These he continued to make for several years, peddling them out in the surrounding country.

At 18 years of age he began teaching school winters. While thus "boarding around," a copy of King's "Text-Book" fell in his way. It was to him a revelation. He learned that the owner had about 50 colonies of bees down cellar, which he was not long in asking to see, and for the first time he looked upon a movable-comb hive—the American.

The next season, in swarming time, he visited this friend, and the charms of bee-keeping appeared greater than those of any other business. Although not really owning a bee till the lapse of many months, he became then and there in spirit a bee-keeper, reading all he could find on the subject, and visiting bee-keepers. The introduction of woolen-factories compelled him to abandon the spinning-wheel trade; and one afternoon in June, while peddling out his last lot, he made a sale to a farmer about 16 miles from home; and although it was only about four o'clock, he begged to be allowed to stay all night, urged thereto by the sight of a long row of brightly painted hives. This bee-keeper had an only daughter, and the reader can weave his own romance, upon being told that the father, Mr. Clark Simpson, became the father-in-law of Mr. Hutchinson.

In 1877 he began bee-keeping with 4 colonies, and an excellent theoretical knowledge of the business. Mr. H. has never kept a very large number of colonies, but has made a comfortable living by the sale of comb honey. In 1887 he removed from Rogersville to Flint, Mich., where he established the *Bee-Keepers' Review*, which fills a place not previously occupied, and is edited with the ability that might be expected from one who has been so favorably known through his many articles published in the bee-periodicals and other papers.

In appearance, Mr. H. might more readily be taken for a professional



W. Z. HUTCHINSON.

man than for a farmer or bee-keeper. Tall, straight as an arrow, with side whiskers, and rather dark complexion, he presents a conspicuous figure at the gathering of bee-keepers, where he is always in office, whether the gathering be local or national.

In the last *Review*, Bro. Hutchinson copies our article from page 83 on the unhealthy increase of bee-papers, and adds :

The last 25 years have witnessed wonderful progress in the arts and industries. Bee-keeping has not lagged behind. With this progress came an increase in journalism, and in the publication of books, but the production of apicultural literature has not been multiplied to any greater extent than has that devoted to other rural industries. It is true that many bee-papers have been born only to struggle and die; but the same is true of many a venture in all the fields of journalism.

It is true that competition is one factor in the combination of causes that has brought failure to so many journalistic efforts, but there is more than one kind of competition. Brother Newman has mentioned one kind, the competition of numbers, but that of quality is passed unnoticed. We believe that, in the field of apicultural journalism, more failures have come from the superior qualities of competitors than from their numbers.

This competition among bee-papers is really a *benefit* to bee-keepers. It acts as a spur to the editors; and, in their efforts at vieing with one another, better journals are produced. Too many bee-papers have been started with no intention of competing in the race for *quality*; the primary object being simply that of furnishing an auxiliary to a supply trade—a sort of side-issue. Others have been started with no conception of the obstacles to be met and overcome. Many a journal has gone to the wall because the editorial work has been done in a listless, dreary, half-hearted way that actually courted failure.

"Tis not wealth, nor rank, nor state,
But its 'git up and git' that makes men great."

To succeed in apicultural journalism, there must be a thorough, practical, working knowledge of bee-keeping; a personal acquaintance with apiarists and with the hobby of each; and the journal must stand *first* in the affections of its editor. In the highest and truest sense, it must be his "baby." For it he must be willing to rise early and work late; to wear plain clothes, yes, *patched* clothes, if necessary; to live on simple fare; and there must be no hesitation as to whether he can afford this or that for his journal; he must simply pull out his pocket-book and *lay it on the altar*.

Neither will it answer for him to sit in his office week after week and month after month; he must work with the bees, get out among bee-keepers, visit conventions and apiaries, and know what is going on; in short, he must leave no stone unturned in his efforts to bring his journal up to the highest standard. This is only a *part* of the price that must be paid for success in apicultural journalism, and he who cannot pay it willingly, cheerfully, yea, *proudly*, would better adopt some other style of wooing the fickle goddess.

As to the hard work, expense and "grit" necessary to succeed in the publication of a bee-periodical, the above are some graphic remarks from one who has "been there," and knows all about it. The *Review* is a home-made periodical. Bro. Hutchinson is

its editor and type-setter, and the work is all done at his home by the assistance of Mrs. H. and their children. It is well gotten up, beautifully printed, ably edited, and deserves a liberal support.

QUERIES & REPLIES.

Best Kind of Fuel to Use in Bee-Smokers.

Written for the American Bee Journal

Query 624.—What kind of fuel do you consider the best to use in a bee-smoker?—Bee-Man.

Half decayed hard maple.—J. M. SHUCK.

Elmwood slightly decayed, and thoroughly dry.—R. L. TAYLOR.

Any dry wood, and sometimes a little green wood.—DADANT & SON.

Partly decayed maple, beech or elm.—G. M. DOOLITTLE.

Rotten or dozy wood.—C. H. DIBBERN.

I use coarse cotton rags, corn-cobs, or anything that I can get to burn.—J. P. H. BROWN.

I use elmwood. It is the best I have used.—H. D. CUTTING.

Dry hickory or sugar-tree wood; corn-cobs do very well.—M. MAHIN.

Rotten wood, or "punk" thoroughly dried; cotton rags, properly tied in a roll.—MRS. L. HARRISON.

On the whole, I prefer decayed wood—a sort of dry-rot. This makes much smoke, with little heat, and burns long.—A. J. COOK.

Dry rotten elm, should your work be limited; but for an all-day's job, hardwood chips of almost any kind.—J. M. HAMBAUGH.

Dry rotten wood. I keep some chopped up, ready for use, in a box behind the cook-stove, where it is always dry.—MAHALA B. CHADDOCK.

I prefer the fine ribbon-like shavings obtained in sawing sections. It makes a great amount of smoke, and is always at hand.—G. L. TINKER.

Rotten pine, soaked in salt-petre, with a little "excelsior" (fine shavings) to start up with.—W. M. BARNUM.

I use decayed apple-tree stumps; but any fuel that will burn, and give "lots of smoke," is good enough.—J. E. POND.

Really, I do not know. It is largely a matter of convenience. One of my apiaries is in an evergreen grove, and there we like pine cones best, because

we can pick them off the ground. Elsewhere, planer shavings are mostly used. Rotten wood, sound wood, rags, corn-cobs, peat, etc., are good.—C. C. MILLER.

Pine shavings have given me just as good satisfaction as anything. They should be well packed.—E. SECOR.

The best I ever had was the rotten wood of the willow; but for several years I have been using rotten elm.—A. B. MASON.

The best fuel I have ever tried (and I have used nearly everything) is decayed elmwood. Some other woods are nearly as good, but the elm gives more smoke, with less heat, than anything I have tried.—G. W. DEMAREE.

Dry hickory, half-decayed hard maple, punk, planer shavings, corn-cobs, peat or rags are all well suited, besides other things, for fuel for bee-smokers.—THE EDITOR.

Distance Between Apiaries of Different Races.

Written for the American Bee Journal

Query 625.—About what is the nearest that two apiaries could be approached to each other, one containing Italian, and the other black bees, and keep the Italians pure?—J. L. L.

About ten miles.—H. D. CUTTING.

Probably one-half mile.—MRS. L. HARRISON.

We cannot assert, but we would say about five miles.—DADANT & SON.

Eight or ten miles, I think would be required to make it sure.—R. L. TAYLOR.

My experience says from four to five miles.—G. M. DOOLITTLE.

Italian and black bees will cross where distant four miles.—J. P. H. BROWN.

It would be perfectly safe at six miles. A shorter distance may do, but I am not certain.—C. H. DIBBERN.

I do not think that any one knows. I should prefer to have the apiaries at least five miles apart.—A. J. COOK.

I suppose that six miles would be considered a safe distance.—MAHALA B. CHADDOCK.

I cannot say positively, but I would hate to risk them any nearer than five miles.—J. M. HAMBAUGH.

I think that three miles is a safe distance. Others will put it further, but I think that they are mistaken.—G. W. DEMAREE.

That puts me in mind of a question once asked as to how far apart Lombardy poplar trees should be set. The reply was 50 miles. That about answers this query. Not that bees will

fly 25 miles, but with runaway swarms flying 8 to 10 miles, as I have known them to do, any one can readily see how liable to mix they may be, when we think that they are at a safe distance.—EUGENE SECOR.

I do not know. Consult the back volumes of the AMERICAN BEE JOURNAL, and the standard works on bee-culture.—A. B. MASON.

To make the matter certain, I would not want them nearer than five miles. I have reason to believe that they will sometimes cross at that distance.—M. MAHIN.

From four to five miles; though I am inclined to think that three miles would practically insure no inter-crossing.—WILL M. BARNUM.

Some think half a mile, and more think two miles or more. Possibly the shorter distance may be nearer right.—C. C. MILLER.

I do not know. Cross-mating may occur if the two apiaries are a hundred miles apart. The woods are full of bees, and the wild bees cannot be controlled. Satisfactory results have been obtained were the apiaries were five or six miles apart.—J. M. SHUCK.

About seven miles. The queen, in my opinion, never flies far from the hive, but the drones make long flights on warm days, when the air is still. If the apiarist does not mind an occasional hybrid, it will do to locate the apiaries three miles apart.—G. L. TINKER.

At least three miles; at $2\frac{1}{2}$ miles I have had them mix. Four miles in a direct or "bee-line" would be preferable to myself.—J. E. POND.

We should not feel safe if they were nearer than five miles—though in some localities they may be nearer and not deteriorate.—THE EDITOR.

Convention Notices.

¶ There will be a meeting of the Susquehanna County Bee-Keepers' Association at Tarbell House in Montrose, Pa., on Saturday, May 4, 1889, at 10 a.m. H. M. SEELEY, Sec.

¶ The Des Moines County, Iowa, Bee-Keepers' Association will hold its annual convention in the Court House at Burlington, on April 23, 1889, at 10 a.m. All bee-keepers are invited. JOHN RAU, Sec.

¶ The 11th annual session of the Texas State Bee-Keepers' Association will be held in the apairy of W. R. Graham, of Greenville, Hunt Co., Tex., on May 1 and 2, 1889. All bee-keepers are invited. The last meeting was held here last May, and was the best ever held. So we look forward to a good time next May. A cordial welcome and hospitality will be tendered to all who come. G. A. WILSON, Sec.

Many Physicians are among our subscribers, and to such we may say that one of our valued correspondents, G. P. Hachenberg, M. D., intends to publish a new medical work, called a "Medical Consultation Book," which will be very valuable to physicians everywhere. He will send a prospectus upon application. His address is, P. O. Box 616, Austin, Texas.

CORRESPONDENCE.

VENTILATION.

Wintering Bees in Cellars that are Ventilated.

Written for the American Bee Journal

BY DR. C. C. MILLER.

As much because I think the matter exceedingly important, and would like to learn the truth, as because I think I know a little about it, I want to say something about ventilation of cellars.

There are a great many things unsettled in the domain of bee-keeping, and I consider the whole matter of wintering bees as one of them—at least it is unsettled with me. But there are some things pretty definitely settled, and among them I count this, that bees, to winter in the best manner, *must have plenty of ventilation*. You need not tell me that Mr. Doolittle winters his bees without ventilation—he does nothing of the kind. Even if he shuts up his bees in a cave, and leaves them untouched all winter (and it makes me green with envy when I think of it), closing his ventilators tight, still those bees get ventilation through the walls and soil the roof, possibly about all they need. I suspect, however, that if there could be a freer exchange of air without lowering the temperature, his bees might be the better for it.

Now do not let us get into a quarrel on account of a misunderstanding of terms. By plenty of ventilation, I mean a sufficient change of air in the cellar so that the bees shall have all the oxygen they need, and not be obliged to breath poisonous gases. How much it takes to make plenty, I do not know. If enough air for their needs comes through the cracks of a cellar-wall, then they have plenty of ventilation. But whatever it be, whether a 12-inch tile or an invisible crack, that much or that little they must have, or they will suffer.

In the last 30 years I think there has never been a time when there were not some who insisted that, bees wintered out-doors, were healthier, stronger, and built up faster in the spring than those wintered in the cellar; and why shouldn't there be something in it? Take two men alike in all other respects, only that one lives mostly in the open air, and the other in a close room, and we know that there will be a marked difference in their physical condition. One is weaker and paler than the other, and the general rule for all animals is, that for the best

physical development plenty of pure air is essential.

Now the sole object, I think, of wintering bees in cellars, is to keep them in a higher temperature than they would have out-doors. Aside from temperature, the nearer the cellar can be kept like out-doors, the better. Even some of those who insist that bees use so little air that no attention need be paid to the ventilation of a cellar, insist just as strongly that the ventilation of the hive is very important, even to having the whole space under the hive entirely open. What is the use of ventilating the hive? Why, to get better air in it, to be sure.

But suppose the cellar be hermetically sealed, every time the bad air of the hive is changed the air of the cellar becomes vitiated so that it is only a question of time when the ventilation of the hive becomes practically impossible, for the simple reason that there is no pure air in the cellar. A single colony in a cellar might get along comfortably well, even if not a thimbleful of fresh air could get into the cellar, if the cellar were large enough, and a hundred colonies might do equally well, *if the cellar were large enough*.

But a cellar which would winter finely 10 colonies, depending upon the fresh air that would force its way through the walls, might prove a failure with 100 colonies. It must be remembered that if ten times as many colonies are put into a cellar, each colony will *not* have one-tenth as much air.

For the sake of illustration, suppose that each hive with its contents displaces one cubic foot of air; and suppose the cellar contains 510 cubic feet. If 10 colonies are placed in it there will be left for them 500 cubic feet of air, or 50 cubic feet for each colony. Now if 100 colonies are put in, displacing 100 cubic feet of air, there will be left for them 410 feet of air, or 4.1 feet for each colony—about one-twelfth as much as when one-tenth as many hives were there.

If I am not mistaken, the matter of ventilation is not troublesome in the South, where the temperature also takes care of itself; but in the colder portions of this country, there is always more or less of a struggle going on with both, and a perfect ventilation cannot be obtained without a sacrifice of heat, nor the best temperature without some sacrifice of ventilation. Just what is the best compromise in each case is not easy to determine, and I suspect that it is quite possible that some of our notions about wintering bees may undergo considerable change.

For one, I am far from satisfied with my own practice. If I could winter

my bees in a cave, like Mr. Doolittle does, with no care whatever, I should be willing to have my colonies come out a little weaker if necessary in the spring; or if I could let them stay outdoors without care in winter, I should be willing to have my winter losses considerably heavier, provided those colonies which did live through should have healthier and more vigorous bees.

Marengo, Ills.

AND WHAT?

Deacon Smith on Bee-Keeping with other Pursuits.

Written for the American Bee Journal

BY EUGENE SECOR.

Deacon Smith has the happy faculty of hitting the nail squarely on the head. He does not know a rule in grammar from the subtlest philosophy ever dreamed of, but his contact with the world has given him a common-sense view of the common affairs of life falling under his notice, and although sometimes told in a blunt and homely way, his conclusions are often forcible as well as amusing.

He likes to administer his criticisms in the way the hunter aimed his rifle—to kill, if it was a bear, and to miss if it happened to be a man. At least that's what I thought a few evenings since, when the Deacon “hooked onto Mirandy,” and brought her over to our house “to see the good woman,” while we, as usual, entertained each other—he doing the talking, and I listening eloquently.

It's a treat to hear him talk; and to get him started, all I have to do is to wind him up like a Waterbury watch (but it doesn't take so long to set him going as it does to wind the aforesaid Waterbury).

Knowing the Deacon to be a sensible man, devoid of all impracticable ideas, and knowing also that the question at the head of this article has been discussed by many of the best writers and thinkers in apiculture, I was anxious to learn the views of a practical bee-keeper who does some thinking on the subject without the writing; so in answer to the question, he began:

“What do I think would go along well with bee-keepin'? Well, I'll tell you. The best occupation I know of is bankin'. You may talk about your chicken business, and your small-fruit business, and your farmers' and dairy business, and all the etceteras, but they don't compare with bankin'.

“Wasn't you tellin' me once of the two Irishmen leanin' on their spades, and Mike says to Pat, now Pat, how would you rayther do for a livin' if ye

had your choice ; and Pat says, leanin' heavy on his spade, 'Well, Moike, for a nice, clane, airy job, I'd loike to be a Bishop ?' Now that's my ticket exactly, only I'd like to be a Banker.

"I tell you there's nothin' so soothin' to the feelin' of the honest and hard-workin' bee-keeper, when the clover blossoms don't give down, and he goes about weepin' and mournin'—like Rachel of old—for the basswood bloom because it is not, as to know that his bank account is in a healthy condition, and will stand the wear and tear of a year's hard times, without patchin'.

"If a fellow carries on the chicken business, he has got to get up in the mornin' when the old rooster calls him, or his Plymouth Rocks won't catch the early worm we hear so much about. If he is farmin', the calves will want their breakfast before 8 o'clock, and the dew on the corn leaves has got to be knocked off or he won't get a boomin' crop. If he raises berries for a livin', he'll have to be astir before sun-up, or he'll get left; but with the bankin' business, he don't have to open shop before eight in the mornin', and he can shut up at five, count his cash, and go home and see if the woman and boys have tended the bees all right.

"If a drouth kills the clover crop, all he has to do to make both ends meet, is to loan a little more money at a little bigger rate of interest. If an early frost nips his buckwheat before the bees get their hives full, he can call it a *stringency in the money market*, and tax his customers a little more for an accommodation.

"You say 'everybody can't be bankers ?' Of course not. If they was, there would be no one to furnish business for them ; neither can everybody be bee-keepers, because if they was, there would be nobody to buy our honey ; and I reckon about as many folks can be bankers as can be a success at bee-keepin'.

"The next best thing to bankin' is keepin' supplies to sell to other bee-keepers. In fact I don't know but this is the best thing after all, for they call these men *specialists*. That's a big name now-a-days. If a man is only a 'specialist,' he must be awful smart ; and if he produces honey, and sells queens, and makes bee-hives and other fixin's, and prints a circular every year to coax every other fellow into the business, he'll get his name in the paper (and may be he prints one himself), and most always gets his picture in, too. Of course that don't advertise his business any, but it makes him feel awful good to be called the "King-bee." Its better to be a big toad in a little puddle, than to be a tadpole in a

mill-pond ; and the big toads are the fellows that make bee-keepin' a specialty, in order to get their names in print, while at the sametime they run a carpenter shop, or buy and sell a hundred things a bee-keeper don't need, only to be in fashion.

"I hain't made nothin' keepin' bees for two years, and if I could make somethin' sellin' contraptions to my neighbors, it would go a long way toward helpin' the clover crop out. These newfangled things for the apiary take first-rate before people get their eye-teeth cut. They are bound to have 'em you know, and if I sell 'em to 'em, I'll be a *specialist*, and get my name in the papers as the 'great king-bee of Puckertown.'

"It would tickle Mirandy awfully to have folks writin' to me askin' me questions, and callin' on me every day but Sunday, to carry home some of them beautiful hives and fixin's, that'll git honey whether there's any in the flowers or not.

And then I'd invent some great bee-savin' fodder that would link my name to posterity as the only original Smith genius the world ever produced, and all the tribes of Smith will rise up and call me blessed.

"You may, if you like, follow bee-keepin', and break your back over the strawberry patch, but I'll be a specialist and sell goods to the rest of the world."

Forest City, Iowa.

APRIL TEARS.

Oh ! April, bonny April, why shed such show'r's of tears
When the green, green grass is springing over all
the waking earth,
And many a fragrant flower the wood and meadow
cheers,
And many a bird from budding trees sings songs
of love and mirth.
Oh ! April, bonny April, why shed such show'r's of tears?

"My tears are not of sorrow. They are happy, happy tears,
The golden sunshine makes of each a sparkling
rainbow'd gem ;
I am so glad as each sweet flower and joyous bird
appears,
To think that back to our dear land my voice has
summoned them.
My tears are not of sorrow. They are happy, happy tears!"

—Vick's Magazine for April.

LINDEN HONEY.

Moving Bees to Secure Honey from Basswood.

Written for the American Rural Home
BY G. M. DOOLITTLE.

A correspondent wishes me to answer the following questions :

"1. I am thinking of moving my bees, the coming summer, a few miles to where there is an abundance of basswood, hoping to secure a greater yield of honey than I at present receive, as I

have no basswood near me. What do you think of the idea ?

"2. Are not the blossom-buds formed on the basswood-trees a few weeks previous to the time of their opening, so that I can know by this whether there is a prospect of honey from that source, in time to make preparations for moving ?

"3. Are there any seasons when basswood blooms in profusion, when there is no honey-yield from it ?"

In answering the first question, I would say that the plan is a good one, and I can see nothing against it, except the expense. I believe basswood to be the greatest honey-producer in the world. In fact no report has ever been given (if I am correct) of an average yield of 20 pounds per day from a single colony for 30 days in succession, except from basswood. Mr. Gallup had a colony do this. I had one which stored that for about 10 days, the best yield being 66 pounds in 3 days.

Now, if the questioner can move his bees to the basswood, and return them at an expense of \$1 per colony, it will be seen that 10 pounds of honey from each colony will pay the cost, counting honey at a very low figure, if he should get that much surplus ; and if the cost should even come up to \$2 each, 20 pounds would make it good.

By going back over my account with my bees for the past 16 years, I find that from basswood alone, my yield of honey has not been far from 60 pounds, on an average, from each colony, each year ; the lightest yield being about 35 pounds, and the heaviest 120 pounds. This is the average yield of the yard, not the yield of an individual colony.

Now, if you call 60 pounds what we can expect one year with another from basswood, and that it will cost 20 pounds of that honey for moving the bees to the basswood, we shall have 40 pounds left for profit ; or, if honey sells at 15 cents per pound, as it does at present, that when sold will give us \$6 per colony as clear money on each colony, over what we should have had if we had not moved them. So if 100 colonies are moved, we have \$600 over all the expense for our undertaking.

In answering the second question, I will say that the fruit-buds and leaflets of all trees with which I am familiar, are formed in June and July of the preceding year, so that the results of the next season's honey-yield, as far as buds and flowers are concerned, are already formed in embryo, on the apparently bare and lifeless branches of the basswood trees. They wait only for the warmth of spring, to bring this dormant life into growth.

As soon as these buds unfold (the latter part of May) then we can see and know whether to make prepara-

tions for moving the bees or not. By examining closely we can find the bunch of buds at the base of each leaf, curled up, looking like the half of a very small pea, or perhaps a little fuzzy caterpillar would explain it better. With each week this bunch of buds grows till at the end of about seven weeks from the time the trees put on their green in the spring, they open their flowers, filled with nectar to invite the bees to a sumptuous feast.

Of course, a cool season will retard the time of their blossoming a little, and a hot season advance it; but the above is the rule. Thus the practical eye can tell nearly two months in advance, as to the promise of a yield of basswood honey.

In replying to the third question, I will say that I never knew a season when the basswood did not furnish some honey. The shortest yield which I ever knew gave a three days' yield, in which honey was so plentiful that the bees could not prepare room fast enough to store it, with a gradual tapering off of two days more, making five days in all. The longest gave a yield of 25 days, with three of them so cold that the bees could only work a little in the middle of the day.

The state of the atmosphere has much to do with the secretion of honey in the basswood flowers. The most unfavorable weather is a cold, rainy, cloudy spell, with the wind in the northwest. If basswood bloomed at a time of year when we were liable to have much of such weather, there might be such a thing as an entire failure of honey from it. But as a rule, we have very little such weather at this time of year.

The condition most favorable to a large yield is, when the weather is very warm, and the air filled with electricity. At times when showers pass all around with sharp lightning and heavy thunder, the honey will almost drop from the blossoms, providing no rain chances to come within a mile or two of it. At such times as this, I have seen honey in the blossoms after they had fallen off on the ground, so that it sparkled in the morning sunshine. Then, this nectar is honey and not sweetened water, which makes basswood doubly valuable over most of the other honey-secreting plants and trees.

One bee-load of nectar from the basswood, in a dry, warm time, is equal to three from the white clover, or five from some other of our flowers. In a rainy time there is not so marked a difference. At times when basswood was yielding its best, I have seen more than a bee-load of honey in a single flower. I have taken one stem of blossoms, when the yield was great,

and jarred it over my hand, when I would have several drops of nice honey in it. At such times as this, 1,000 colonies of bees could find all the honey which they could carry, if all were left in one place; at all other times, I think from 100 to 200 colonies would be ample for any locality.

Borodino, N. Y.

FAIR EXHIBITS.

Separate Buildings for Apriarian Displays.

Written for the American Bee Journal

BY DR. A. B. MASON.

On page 132 I am asked, among others, to tell what I think about separate buildings for bee and honey shows at fairs, and the request is prefaced by these words: "Much may be said in favor of a separate building."

Yes "much may be said in favor of" such a building, but I think that much more may be said in favor of usually making apriarian exhibits in buildings in which other exhibits are made.

It is "just splendid" for bee-keepers to have a building all to themselves. The Michigan bee-keepers have had such a building for six years at their State fair, and it is nice for them; I think that it was in 1883 that they had their first separate building at Detroit, and very nice displays were made by M. H. Hunt, W. Z. Hutchinson and H. D. Cutting. There were also some smaller exhibits, but the building being off to one side, it was not visited by the crowd.

The next two years the fair was at Kalamazoo. The building was larger and better located, and was visited by all who desired to see the exhibit. For the last three years the fair has been held at Jackson. It is not well located, visitors having to go at least 60 feet, I should think, away from the regular thoroughfare, to see the exhibit; and when the ground is muddy, as fairgrounds generally are during fair time, people are not going far out of their way to see what they are not especially interested in.

At the Ohio Centennial last fall, our honey-building was located fully 75 feet from the main thoroughfare, and there were many days when mud was supreme, that our building was pretty well neglected, and we felt "kinder lonesome."

At our Tri-State Fair, here at Toledo, the managers have several times offered to put up a separate building for us, but I have so far preferred our present location, which is in one end of what is known as the Main Hall—the largest building on the grounds—

in which is the Art Gallery, dry goods, notions, clothing, everything made by the ladies, sewing machines, musical instruments, flowers, fruits, vegetables, grains, seeds, the products of the kitchen and dairy, etc., and no one can see these without seeing the bees and honey.

Exhibits at the Tri-State Fair.

Our first exhibit was made in 1882, and "ye editor" being present as judge, said this in the AMERICAN BEE JOURNAL for Sept. 20 of that year, in regard to that exhibit:

"Bee and Honey Show at Toledo, O.—Such a grand success was this new feature of the Tri-State Fair, that the managers have already promised the bee-keepers all the space they may desire at the fair for next year.

"The small corner set apart for the bee and honey show was so crowded all the time, that it was with great difficulty that any one could get through the crowd, and utterly impossible for one-quarter of those who desired to examine the exhibits, to even get within a stone's throw of them."

Every year since, the honey exhibit has been an attractive feature, and we much prefer to remain in the main building, to having a building by ourselves. Last year one of the directors spoke of leaving out the honey-department, so as to save so much money (\$81), but he was "alone in his glory." They have found it difficult to fill the space we occupy with anything else.

We make a specialty of exhibiting honey, and display it to the best possible advantage. The number of exhibitors is generally so small in most localities, that a building of respectable proportions could not be so filled as to do credit to our specialty.

I believe that the premium list is of vastly more importance than the building. No one is going to make an exhibit in any department unless it pays. That is what we are all after, the pay. Many exhibits are made without any premiums being offered, the sales and the advertising being sufficient remuneration.

In this locality the sales and advertising in the honey department are not enough to pay, although the sales increase every year. Last year there was an unusual demand for honey.

If a separate building is used, it must be filled, or the fair managers will be disgusted, and wish they had saved the money invested in the building for some other purpose. If the exhibits are made in connection with other displays, and the show of honey, for any reason, is small, other exhibits will take its place.

Last season being such a poor honey season, there was but one entry made here besides ours, and we had to "spread ourselves" to occupy the allotted space; and living only about a

mile from the fair, it took us but a few hours to "get there," and the space was occupied so that visitors said it looked better than ever—and it paid us better than ever.

I believe that in nine cases out of ten, a separate building is not needed, and would be a positive damage. Even where there is a large display, it is by a few exhibitors, and "lots" of other bee-keepers will say, "I could beat that," but they never try.

The premiums should be so arranged as to bring out those things that are most attractive to the general public, and give to each exhibitor, so far as possible, enough premiums to pay all expenses; and I am sure that the social part, and the pleasure had in the endeavor to add to the general display and general good, will pay well for the time spent. But whether the exhibit is made in a separate building or otherwise, an effort should be made to aid the managers in making the fair a success, and not have them feel that our department is a burden.

At the Michigan State Fair, the bee-men are a positive help to the managers, and cause them no anxiety. Here at our Tri-State Fair, they pay no attention to our way of doing things, for as they say, "Everything will be all right in your department, anyhow;" and at the Ohio Centennial, at its close the Society told me that our department was the only one that run smoothly, and from which no complaints were made; and when any of us wanted anything, the officers were glad of an opportunity to do us a favor.

A good way to help make it pay is, to take a goodly supply of "providence" in the lunch-box; bedding enough to make a comfortable bed on straw, and live on the grounds. A small oil-stove, that can be had for a dollar, will readily warm up cold "vittles," and make the tea or coffee; and so far as my experience goes, there is plenty of milk to be had, fresh from the fountain, for "little or nothing," or honey, and there is lots of comfort in being at home.

That is the way I lived at the Centennial for eight weeks, and nearly all the time I had from one to three besides myself at my table, and others were living in the same way in our building. A small oil-stove, as above referred to, boiled our "taters," and cooked our meat, etc.

Such a way of living is a regular "picnic," and beats a hotel or boarding house "all to pieces." No cooks, or waiters, or boarders to growl. Good square meals, and good square appetites; good honey always on the table, good company, and a good time generally.

Auburndale, O.

BEGINNING.

An Amateur's Experience in Keeping Bees.

*Written for the American Bee Journal
BY A STUDENT.*

In the spring of 1886 I got one colony of pure Italian bees, in an 8-frame Langstroth hive, for which I paid \$8. I moved them eight miles in a lumber-wagon, and put them in the shade of a large crab-apple tree. Although the frames were in no way fastened, there were no dead bees or broken combs.

The surplus arrangements for comb honey were put on at once, and the bees went to work in them immediately, and in a short time they stored about 12 pounds (which was all the surplus honey I got that year), when they swarmed. As the queen's wings were clipped, she was easily caught upon leaving the hive, when the old hive was removed to a new location.

The bees clustering in a tree as soon as they missed their queen, gave plenty of time to put an empty hive on the old stand, and the bees shortly after returning in search of their missing mother, entered the new hive, the old queen being allowed to run in with them.

They immediately went to work, and when I looked at them about eight days afterwards, they had the hive full of comb, and the four middle combs were full of worker brood, while the other four were nearly all drone-comb, and had some eggs and larvae in them, and some honey. Had I done as I should, and taken the surplus arrangements from the parent hive, and placed them on the new swarm when they were first hived, eight days before, I have found from later experience that there would have been but very little drone-comb built by the new colony, and the swarming impulse would, as a general thing, have been done away with for the season, and the new colony would have stored nearly 50 pounds of surplus honey.

But ignorance is expensive, as I learned to my sorrow before the next spring. The old colony cast 4 after-swarms, the first two of which were of good size, but the last two were very small, and as they were all hived on eight empty frames, it may justly be imagined that they did not "wax rich in stores;" and when fall came, with the frosty nights, the busy little workers were obliged to suspend work, and they were, as I have since learned, in a poor condition to withstand the long and cold winter.

The first swarm cast by the old colony, swarmed about the middle of July. Both of these swarms were,

however, in good condition for winter, having plenty of honey and bees.

About the first of November these 7 colonies, all from natural swarming, were placed in the cellar under the house, and directly under the living room, the noise of which seemed in no way to disturb them, as some seem to think. I did not examine the bees until the next spring, after they were placed on the summer stands; then I found the last 2 after-swarms dead, and the 2 others were so very weak that I united them, thus leaving me 4 colonies to begin the season of 1887 with.

The cause of the death and weakness of the 3 colonies was starvation, caused by too much room, consequently scattered stores. Bees, to winter well, should have *just* the amount of combs, well filled with sealed honey, that they can compactly cover, and these frames of comb, if less than a hiveful, should be placed in the middle of the hive, with a dry basswood division-board on each side (made the same size as the brood-frames), and the spaces at the sides filled in with dry fall leaves—soft maple leaves are the best.

The honey-board inverted with a piece of gunny cloth tacked on the top side should be placed over the frames, leaving a $\frac{1}{4}$ -inch space between the top of the brood-frames and the slats of the honey-board, thereby giving the bees plenty of room to pass over the tops of the brood-frames, from one to the other, which is essential to successful wintering.

I have always, since the first winter, placed an empty T-super on the top of the honey-board (arranged as just described), and filled that with leaves, and then placed the cover on that, giving the hive the same appearance it has in the honey season with one 24-pound super of sections on; only in this case the honey-board is inverted, and has a piece of gunny-cloth tacked on the upper side of it, to prevent the leaves from falling through on the brood-frames, and the super is filled with leaves, instead of one-pound sections.

During the summer of 1887 I increased the 4 colonies to 9, and took 300 pounds of comb honey in one-pound sections. I use sections 2 inches wide, preferring them to those more narrow, for the reason that they always hold one pound, and for that reason they can be much more readily sold by the single comb than the others.

In the fall, before putting the bees into the cellar, I united so that I had but 6 colonies, and one of these, I am now satisfied, was queenless, the queen having been killed while transferring them from a hollow limb, into which they knew no more than to go and

make lots of trouble getting them down and into a respectable hive.

Getting a Swarm from a Tree.

It was a swarm that left in spite of cow-bells, tin-pans, dust, sand and water; and after giving me a chase of nearly three miles, in the middle of an August day, with the thermometer at 98° in the shade, it finally got away by crossing a small lake; however, they were seen by one of my neighbor's to enter a hollow oak-limb, about 60 feet from the ground.

So one evening, about a week afterwards, father, myself, and a German by the name of Joe, who was working for us, went down to the lake, in the woods of which the bees had made their home. Joe enclosed his head in a bee-veil, and with a bee-smoker well lighted, and a saw and rope fastened around his waist, started up the tree with "fire" in his eye. He had "fire" in both eyes when he came down shortly afterward. He also had a piece of wire screen to fasten over the hole in the limb.

Joe had, of his own free will, agreed to lower the swarm safely to the ground for \$1.00, saying, "Dat vas nodings." I think, however, that he changed his mind before he got down again from the tree. The smoker had worked loose, and fallen to the ground, and when he got to the bees, contrary to what he expected, the bees were crawling all around the entrance on the outside. However, he succeeded in getting the screen over the entrance, but was obliged to leave a few dozen of the guards outside, and they, true to their reputation, kept Joe busy.

He succeeded in tying one end of the rope around the limb, preparatory to lowering it when he had it sawed off. Everything would have been lovely, had it not been that in sawing off the limb, he sawed into the hollow, and when the limb fell, it seemed to wake up an immense lot of bees, which came out of the end of that hollow log with bayonets fixed, and intent to kill.

Joe had neglected to unwind the rope from around his waist, and with the bees swinging just under his feet, he slid for nearly 20 feet down the tree, without once stopping. When he first started down the tree, his veil loosened, and the bees struck for unexplored regions, which seemed to increase the speed with which Joe descended the tree. He, however, got to the bottom in a very short time after starting, and so did the bees—the one exceedingly hot and increasing in size, the other mad and vicious.

But by the use of the smoker, which was relighted, we succeeded in tying a coat over the end of the log, and in that way carried it home, and there it

was left in the wagon until morning, when we split the log open, and drove the bees into a hive. We got nearly two bushels of nice clover honey from the log.

The bees, however, were not satisfied, and came out several times that day, and clustered every time on the same rose bush. Finally, to make them behave, I had to give them a frame of eggs and brood from another colony. From these I thought that they would rear a queen, if theirs was lost, but this they did not do, and I know not why.

Joe grew fat over his experience, but seemed to have enough, judging from the way he spoke about "those confounded little bugs."

Last spring, when I examined the bees after putting them on the summer stands, I found 5 of the colonies with bright combs, nearly full of brood and eggs, and a good lot of bees in each. The sixth colony had moldy combs full of dead bees, and the hive was badly spotted. They evidently died of diarrhea, caused, no doubt, by having late and thin honey to winter on.

The 5 colonies increased, by natural swarming, to 12, and gave 500 pounds of surplus honey, in one-pound sections.

I use the tiering-up system, and so far it has been satisfactory, especially when honey is coming in very rapidly; but where honey is coming in very slowly, I think that I should prefer to take the sections out as fast as filled and capped, and after removing the unfinished ones to the sides, place the empty ones in the middle. I say empty, but they are not, for I use full sheets of foundation in them. By placing the new sections in the middle of the super, it stimulates the bees to commence work in them at once.

Fastening Foundation in the Sections.

I have read considerable in the AMERICAN BEE JOURNAL lately, and in the past few months, about fastening foundation in sections. The trouble seems to be the fact that the bees draw out much faster the side of the section that the wax is spread out on, in fastening in the foundation, thereby bulging one comb into another. As yet I have had no trouble of that kind, and I think that none will, if they place the sections in the supers as I have done.

I use a "Parker foundation-fastener." My supers hold 24 one-pound sections, $4\frac{1}{2} \times 4\frac{1}{2}$ inches, six in each row across the hive. Now the first section that is put in each of the four rows, is turned so that the side that has the wax drawn out on the top of it from the foundation, is next to the side-board of the super; the next one to it is turned the

opposite way from the first, and the third the opposite from the second, and so on, until the super is full. In that way the side of each section that is liable to be bulged, is brought opposite to the corresponding side of the other, and the sides that the wax is not drawn out on, are also brought together, thereby causing the foundation of each section opposite, to be drawn out with equal rapidity, and preventing one comb from bulging into the other.

Hutchinson, Minn.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*
Apr. 23.—DesMoines County, at Burlington, Iowa.
John Nau, Sec., Middletown, Iowa.

May 1, 2.—Texas State, at Greenville, Tex.
G. A. Wilson, Sec., McKinney, Tex.

May 4.—Susquehanna County, at Montrose, Pa.
H. M. Seeley, Sec., Harford, Pa.

May 21.—Northern Illinois, at Pecatonica, Ill.
D. A. Fuller, Sec., Cherry Valley, Ills.

ED In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.



Not a Colony Lost.—O.M. Morris, Hebron, Ind., on March 26, 1889, says:

I have been in the bee-keeping business for several years, and I always wintered them on the summer stands. Some winters I have lost quite a number of colonies, but this winter beats them all, for I had 167 colonies last fall, and all have wintered nicely, without the loss of a single colony.

Sub-Earth Ventilation, etc.

P. H. Elwood, Starkville, N. Y., on March 15, 1889, writes:

I notice what Mr. Betsinger says on page 156. He prefaces his remarks by the words, "If I am not mistaken"—but as is often the case, he is mistaken. I said at the New York State Convention that, the exit ventilators of my cellars (those carrying out warm air) were closed in the coldest weather. I said further, in explanation, that this did not cut off all ventilation, as the sub-earth ventilator was always open, and bringing in a large volume of fresh air. This could not happen if the natural ventilation was not sufficient to carry out this large amount together with that coming in through crevices and porous material. I stated in convention that from 100 to 200 colonies (the number varying inversely in proportion to their activity)

in winter quarters require as much air as one person.

In proof that I have not changed my views on ventilation for several years, I will refer Mr. Betsinger to an article on page 233 of the AMERICAN BEE JOURNAL for 1878, and to one in the *Bee-Keepers' Magazine* for 1888, page 114. I have not headed any of my articles "Scientific Ventilation." There is a great amount of nonsense palmed off as science, and I have had no desire to add to the quantity. So long as I am in accord with such authorities as Cheshire and Corneil, there will be no need of bolstering up any of my articles with a scientific title.

Lost One-Third in Wintering.

—Wm. Robson, Rolla, Mo., on March 28, 1889, writes:

For the past two seasons the busy little honey-bees have not paid; indeed they have not stored honey enough to winter upon. I have lost one-third, fall count, and several have lost all they had. The first pollen gathered was on March 13; since that time there has been considerable activity among the bees, but, for a change, we are this morning treated to a blanket of snow, about 2 inches deep. From present appearances, we will have considerable white clover for the bees to revel in, the coming summer.

Bees Wintered Perfectly.

Frank Waring, Philipsburg, Pa., on March 28, 1889, says:

The winter being very mild, the bees wintered perfectly on the summer stands. On March 23 I saw them carry in natural pollen (they had been carrying rye flour for some days previous to this), and they have been at it every day since. That is not bad for the Alleghany Mountains—over 2,000 feet above the sea level. The weather seems about a month ahead of the Almanac.

Good Prospects for the White Clover.—R. P. Blades, Carmi, Ills., on March 30, 1889, writes:

The prospect for white clover is better this year than it has been for three or four years. It seems that every vacant spot is covered with white clover; but as for the honey that it produces, I cannot say, as it has been nearly a failure since I have been interested in bees. The honey that is gathered here is from black-gum and poplar. Maple is our spring honey source, but I do not think that it gives

much nectar, but it is good for pollen, and is very welcome, as it is the first to bloom. The flow of fall honey is from smart-weed and Spanish-needle; also other little blooms that have no names, or at least I have never heard any names for them. I have sown 4 acres of Alsike clover this spring; if the Italian bees like that, I will sow more next year. I have 11 colonies of bees in Simplicity hives, some of which I transferred three years ago. The combs in the brood-frames are rough and getting old, and have too much drone-comb also. Would it do to take out the side frames, remove the old comb, and refill the frames with comb foundation?

[Yes; that will not only get rid of the excess of drone-comb, but give the bees something to do, and incite them to labor.—ED.]

My Experience with Bees.—

Robert Schultz, Alma, Wis., on March 30, 1889, says:

I commenced in the spring of 1888 with one colony of Italian bees, for which I paid \$6.00. I had one swarm from them. I then bought 3 colonies of black bees, and put 2 of them into box-hives, and the other in a Langstroth hive; the 2 in box-hives are dead. I put my bees into the cellar, and put them out on March 12. They are strong yet. I found 4 colonies last fall in hollow trees, 2 being Italians, and 2 blacks. I took the honey from the blacks, and the Italians I put into the cellar, but they have all died.

Favorable Winter for Bees.—

S. B. Brillhart, Kendallville, Ind., on April 2, 1889, writes:

I have kept from 25 to 50 colonies of bees for the past 18 years, but the past season was the poorest of all, to get surplus comb-honey in the sections; yet my bees seemed to do well, and gathered enough to go into winter quarters in good condition, but nothing to spare for their keeping. I commenced the season with 38 colonies; in the fall I packed 42 colonies in leaves on the summer stands, 40 of which are now in good condition. I also have 23 colonies 6 miles in the country, which were left standing out without any protection, 18 of which are reported in good condition. The past winter was very favorable for wintering bees, so all that was necessary here was, plenty of good stores; but unfortunately, many bees that had no care will lack this essential, and will have to be mentioned with the dead before May 1, 1889.

Bees Flying Every Day.—Mr. Nathan Mercer, Neosho, Wis., on Mar. 25, 1889, writes:

Last year my bees dwindled down to 30 colonies from 100 in the fall of 1887, so I worked for increase instead of honey last year, and had 48 colonies last fall, all in chaff hives. They stored hardly enough for winter, so I fed them in the fall about 300 pounds of sugar and honey mixed together; to-day they are all alive and in splendid condition, with plenty of honey, lots of brood hatched in every hive (except 3 queenless ones), and with bees enough to cover from 7 to 10 combs in each hive. They have flown out every day for the last two weeks, and yesterday they gathered pollen. They are the strongest colonies that I ever saw for this time of the year.

Bees are Booming.—Arthur H. Weston, Gallatin, Mo., on March 3, 1889, writes:

My bees are booming. All the 29 colonies on the summer stands, have wintered well. I have finally adopted the standard Langstroth hive. I have taken the AMERICAN BEE JOURNAL for several years, and I find it worth a wagon-load of the common kind.

Cellar-Wintered Bees.—S. J. Youngman, Lakeview, Mich., on April 1, 1889, writes:

Bees have wintered well in this part of Michigan, both in cellars and in chaff packing; but cellar-wintered bees will undoubtedly suffer now, as at this date there is 4 inches of snow on the ground, and bees have been out at least ten days, as the weather when they were put out, was unusually fine. My bees gathered pollen at that date. I fear great mortality in bees under such adverse conditions in thin, shallow hives, without even wind-breaks. I prefer my bees snugly packed in clover chaff until at least the middle of May.

None Lost in Wintering.—Mr. Lionel Brokaw, Summer Hill, Ills., on April 1, 1889, writes:

It is with great pleasure that I can report my bees this spring without the loss of a single colony, and it is the first winter that I ever wintered all of them. They are on the summer stands, in single-walled Simplicity hives, as described on page 27. I kept them covered with snow during the winter, when there was snow on the ground, but this being the warmest winter that

I ever saw, I do not care to risk them out another winter. I now think that I will try the cellar next winter. I also purchased, at neighboring sales, 5 more colonies, mostly Italians; thus with my former 20, it makes me a neat little apiary of 25 colonies this spring, and they have an abundance of honey for breeding purposes, too. The bees carried in pollen during the whole month of March, when it was fair, from the apple and elms. I am selling comb honey for 12½ cents this spring. There is a good deal of broken and soiled comb honey in the market here, which makes it drag. I like the AMERICAN BEE JOURNAL very much.

Wintered on Sugar Stores.—

Lemuel Stout, Philadelphia, Pa., on March 31, 1889, says:

All of my bees (4 colonies) came through the winter nicely on 60 pounds of sugar and 30 pints of water, fed in November, 1888, without any tartaric-acid nonsense. I started with Hill's device, with cotton over it, six years ago, and with that kind of feed, and have never lost a colony. I opened the hives on March 24, and they were carrying in pollen. When I put them away I do not believe that the colonies had 4 pounds of honey in all.

Short-Winged Bees, etc.—E. B.

Cohoon, Lakeview, Ont., on April 1, 1889, writes:

I imported an Italian queen from the United States last fall, and on examining her progeny this spring, I find fine, full-developed bees, well bred, but with wings only half the proper length. Can any one explain the cause of this? The bees are in fine condition.

I have 10 colonies of bees wintering in the cellar under the house, and they are coming out finely so far. The weather was fine here for sometime, but has changed for cold now. Yesterday it snowed nearly all day. I think very much of the AMERICAN BEE JOURNAL, which visits me regularly every week, and I could not do without it while I am inclined to work with bees.

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HONEY.—White 1-lbs., 16c.; fall, 14c.; 2-pounds, white, 14c. Extracted, scarce at 8@84c.
BEESWAX.—20@22c.
Mar. 28. CLEMONS, CLOON & CO., cor 4th & Walnut.

CHICAGO.

HONEY.—Our trade is light; no large lots on hand and what there is consists chiefly of dark comb, and not salable in quantities. Choice white comb, 1-lb. sections, 16@17c.; dark grades from 10@12c. Very little demand for extracted, but prices remain at 7@8c., according to quality and package.
BEESWAX.—25c.
R. A. BURNETT,
161 South Water St.

DENVER.

HONEY.—White, in 1-lb. sections, 16@18c. Extracted, 7@10c.
BEESWAX.—18@20c.
Mar. 26. J. M. CLARK & CO., 1409 Fifteenth St.

MILWAUKEE.

HONEY.—We quote: Fancy white 1-lbs., 17@19c.; 2-lbs., 16@17c. Good dark 1-lbs., 15@16c.; 2-lbs., 14@15c. If damaged and leaky, 10@12c. Extracted, white, in barrels, 8@84c.; 1/2-barrels, 81/2@9c.; amber in same, 7@74c.; in pails and tin, white, 9@94c.; in barrels and 1/2-barrels, dark, 6@64c. The demand is fair.
BEESWAX.—20@22c.
Mar. 27. A. V. BISHOP, 142 W. Water St.

NEW YORK.

HONEY.—Market is bare of comb, except some small lots of buckwheat which is selling at from 10@12c. No buckwheat extracted. Cuba and San Domingo extracted, 67@70c. per gallon.
BEESWAX.—24c.
HILDRETH BROS. & SEGELEN,
Mar. 25. 28 & 30 W. Broadway, near Duane St.

ST. LOUIS.

HONEY.—Demand limited to local wants, which are small. We could sell some to country points in barrels and 1/2-barrels at 6@67c. for extracted; in cans, 7@8c.
BEESWAX.—21c. for prime.
Mar. 25. D. G. TUTT & CO., Commercial St.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 8@87cts.; amber, 5@6c. Comb, white 1-lbs., 13@14c.; 2-lbs., 10@12c. Demand for extracted is good; for comb, limited. Prospects are not as good for honey as in 1888.
BEESWAX.—Scarce, at 18@22c.
SCHACHT, LEMCKE & STEINER,
16 & 18 Drumm St.

BOSTON.

HONEY.—We quote: Best white clover 1-pounds, 18@20c.; best 2-lbs., 17@18c. Extracted, 8@89c. Sales are good, but market is short of fancy white comb honey.
BEESWAX.—24c.
Mar. 22. BLAKE & RIPLEY, 57 Chatham Street.

DETROIT.

HONEY.—Best white 1-lbs., 15@16c. Sales slow. Extracted, 8@9c. Demand small, prices lower.
BEESWAX.—22@23c.
Mar. 22. M. H. HUNT, Bell Branch, Mich.

CHICAGO.

HONEY.—We quote: White clover 1-lbs., 15@16c.; 2-lbs., 12@13c. Good dark 1-lbs., 12@13c.; 2-lbs., 10@11c.
Mar. 21. S. T. FISH & CO., 189 S. Water St.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb. Best white comb honey, 12@15c. Demand is slow, and prices low.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Mar. 21. C. F. MUTH & SON, Freeman & Central Av.

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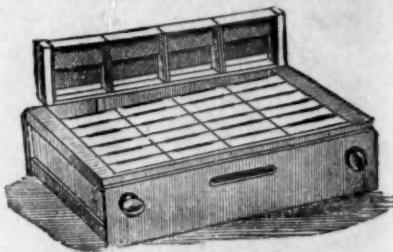
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